

Practical: 8

● **AIM-** What is Frame by Frame Animation? What is Twin Animation? How can you achieve edge-to-edge content display in your app? Create Android Application to demonstrate Frame by frame animation and splash screen to demonstrate twin animation according to below instructions.

Submitted By: MANEESH KUMAR
Enrollment number: 20012531005



**Department of Computer
Engineering/Artificial Intelligence**

Practical-8

AIM:- What is Frame by Frame Animation? What is Twin Animation? How can you achieve edge-to-edge content display in your app? Create Android Application to demonstrate Frame by frame animation and splash screen to demonstrate twin animation according to below instructions.

Activity main.xml:-

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"
android:layout_height="match_parent"
tools:context=".MainActivity">
<LinearLayout
android:layout_width="match_parent"
android:layout_height="match_parent"
android:orientation="vertical"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintBottom_toBottomOf="parent">
<androidx.core.widget.NestedScrollView
android:layout_width="match_parent"
android:layout_height="match_parent">
<com.google.android.material.card.MaterialCardView
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_marginTop="15dp"
android:layout_marginBottom="15dp"
android:layout_marginStart="10dp"
android:layout_marginEnd="10dp"
app:cardCornerRadius="7dp"
app:cardElevation="7dp">
<LinearLayout
android:layout_width="match_parent"
android:layout_height="match_parent"
android:orientation="vertical">
<ImageView
android:id="@+id/alarmImages"
android:layout_width="match_parent"
android:layout_height="742px" />
<TextView
```

```

    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Create Alarm Time"
    android:textSize="17sp"
    android:textStyle="bold"
    android:layout_marginTop="10dp"
    android:layout_marginStart="10dp"/> <TextView
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="@string/alarm_desc"
    android:layout_marginTop="10dp"
    android:paddingEnd="10dp"
    android:layout_marginStart="10dp"/> <TextView
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="@string/check_curTime"
    android:layout_marginTop="10dp"
    android:paddingEnd="10dp"
    android:layout_marginStart="10dp"/> <ImageView
    android:id="@+id/heartImages"
    android:layout_width="27dp"
    android:layout_height="27dp"
    android:layout_marginTop="2dp"
    android:layout_marginEnd="25dp"
    android:layout_gravity="right" />
<LinearLayout
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:layout_marginStart="10dp"
    android:layout_marginTop="15dp"
    android:layout_marginBottom="10dp">
<com.google.android.material.button.MaterialButton
    android:layout_width="wrap_content"
    android:layout_height="wrap_content" app:cornerRadius="20sp"
    android:text="Create Alarm"
    android:textSize="10sp"
    app:icon="@drawable/ic_baseline_alarm_add_24"
    app:iconSize="20sp"
    android:backgroundTint="@color/teal_200"/>
<com.google.android.material.button.MaterialButton

    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="7dp"
    app:cornerRadius="20sp"
    android:text="Create Alarm"
    android:textSize="10sp"
    app:icon="@drawable/ic_baseline_alarm_off_24"

```

```

app:iconSize="20sp"
    android:textColor="@color/teal_200"
    android:backgroundTint="@color/white"
app:iconTint="@color/teal_200"/>
</LinearLayout>
</LinearLayout>
</com.google.android.material.card.MaterialCardView>
</androidx.core.widget.NestedScrollView>
</LinearLayout>
</androidx.constraintlayout.widget.ConstraintLayout>
activity_Splash.xml:-
<?xml version="1.0" encoding="utf-8"?>
<FrameLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".SplashActiviy"
    android:background="@drawable/gradientrectangle">
    <ImageView
        android:id="@+id/image"
        android:layout_width="wrap_content"
        android:layout_height="120dp"
        android:layout_gravity="center"/>
</FrameLayout>

```

MainActivity.kt:-

```

package com.example.madpractical8_20012531005

import android.graphics.drawable.AnimationDrawable
import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.view.animation.Animation
import android.view.animation.AnimationUtils
import android.widget.ImageView

class MainActivity : AppCompatActivity(), Animation.AnimationListener {
    lateinit var alarmimgs : ImageView
    lateinit var alarmimg_frameByFrameAnimation : AnimationDrawable
    lateinit var alarmimgAnimation : Animation

    lateinit var heartimgs : ImageView
    lateinit var heart_frameByFrameAnimation : AnimationDrawable
    lateinit var heartAnimation : Animation
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)
        alarmimgs = findViewById(R.id.alarmImages)
        alarmimgs.setBackgroundResource(R.drawable.alarm_image_list)
    }
}

```

```

heartings = findViewById(R.id.heartImages)
heartings.setBackgroundResource(R.drawable.heart_image_list)
alarmimg_frameByFrameAnimation = alarmings.background as AnimationDrawable
heart_frameByFrameAnimation = heartings.background as AnimationDrawable
alarmimgAnimation = AnimationUtils.loadAnimation(this, R.anim.alarm_animation)
alarmimgAnimation.setAnimationListener(this)
heartAnimation = AnimationUtils.loadAnimation(this, R.anim.heart_animation)
alarmimgAnimation.setAnimationListener(this)
}
override fun onWindowFocusChanged(hasFocus: Boolean) {
super.onWindowFocusChanged(hasFocus)
if(hasFocus){
alarmimg_frameByFrameAnimation.start()
alarmings.startAnimation(alarmimgAnimation)
heart_frameByFrameAnimation.start()
heartings.startAnimation(heartAnimation)
}
}
override fun onAnimationStart(p0: Animation?) {
}
override fun onAnimationEnd(p0: Animation?) {
}
override fun onAnimationRepeat(p0: Animation?) {
}
}
}

```

SplashActivity.kt:-

```
package com.example.madpractical8_20012531005
```

```

import android.content.Intent
import android.graphics.drawable.AnimationDrawable
import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.view.animation.Animation
import android.view.animation.AnimationUtils
import android.widget.ImageView

```

```

class SplashActiviy : AppCompatActivity(),Animation.AnimationListener {
lateinit var guni_image : ImageView
lateinit var logo_frambyframanimeton : AnimationDrawable

lateinit var twinanimeton : Animation
override fun onCreate(savedInstanceState: Bundle?) {
super.onCreate(savedInstanceState)
setContentView(R.layout.activity_splash)
guni_image = findViewById(R.id.image)
guni_image.setBackgroundResource(R.drawable.uvpce_logo_list)
logo_frambyframanimeton = guni_image.background as AnimationDrawable
twinanimeton = AnimationUtils.loadAnimation(this,R.anim.twin_animation)
twinanimeton.setAnimationListener(this)
}
}

```

```

}
override fun onWindowFocusChanged(hasFocus: Boolean) {
super.onWindowFocusChanged(hasFocus)
if (hasFocus){
logo_frambyframanimtion.start()
guni_image.startAnimation(twinanimetion)
}
}
override fun onAnimationStart(p0: Animation?) {
}
override fun onAnimationEnd(p0: Animation?) {
Intent(this,MainActivity::class.java).also {
startActivity(it)
}
}
overridePendingTransition(R.anim.scale_center_in,R.anim.scale_center_out)
finish()
}
}
override fun onAnimationRepeat(p0: Animation?) {
}
}
}

```

AndroidManifests.xml

```

<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:tools="http://schemas.android.com/tools"
package="com.example.madpractical8_20012531005">

<application
android:allowBackup="true"
android:dataExtractionRules="@xml/data_extraction_rules"
android:fullBackupContent="@xml/backup_rules"
android:icon="@mipmap/ic_launcher"
android:label="@string/app_name"
android:roundIcon="@mipmap/ic_launcher_round"
android:supportRtl="true"
android:theme="@style/Theme.MADPRACTICAL8_20012531005"
tools:targetApi="31">
<activity
android:name="com.example.madpractical8_20012531005.MainActivity"
android:exported="false" />
<activity
android:name=".SplashActiviy"
android:exported="true">
<intent-filter>
<action android:name="android.intent.action.MAIN" />

<category android:name="android.intent.category.LAUNCHER" />
</intent-filter>

```

</activity>
</application>

</manifest>

Output:-

